

**AMENDMENTS TO THE CLAIMS:**

**Please cancel claims 22-25 without prejudice or disclaimer:**

1. (Previously Presented) A nanosilicon light-emitting element, comprising:  
an amorphous  $\text{SiO}_x$  film comprising a mixture of silicon atoms and oxygen atoms  
formed on a semiconductor substrate, said amorphous  $\text{SiO}_x$  film being heat treated in an inert gas to form the silicon atoms into nanosilicon of about 3.0nm or less,  
wherein said amorphous  $\text{SiO}_x$  film including said nanosilicon is treated with an aqueous solution of hydrofluoric acid and subjected to thermal oxidation to allow at least one of three primary colors of light to be emitted at a low operating voltage at room temperature.
2. (Previously Presented) A nanosilicon light-emitting element, comprising:  
an amorphous  $\text{SiO}_x$  film comprising a mixture of silicon atoms and oxygen atoms  
formed on a semiconductor substrate, said amorphous  $\text{SiO}_x$  film being heat treated in an inert gas to form the silicon atoms into nanosilicon of about 3.0nm or less,  
wherein said amorphous  $\text{SiO}_x$  film including said nanosilicon is repeatedly treated with an aqueous solution of hydrofluoric acid and subjected to natural oxidation to allow at least one of three primary colors of light to be emitted at a low operating voltage at room temperature.
3. (Previously Presented) The nanosilicon light-emitting element according to claim 1, wherein a blue color of the three primary colors of light is emitted clearly and in a stable manner.
4. (Previously Presented) The nanosilicon light-emitting element according to claim 1,

wherein the semiconductor substrate comprises a silicon substrate, and a temperature of the heat treatment comprises a temperature in a range of about 900°C to 1200°C.

5. (Previously Presented) The nanosilicon light-emitting element according to claim 1, wherein a temperature of the thermal oxidation treatment comprises a temperature in a range of about 400°C to 1000°C.

6. (Original) The nanosilicon light-emitting element according to claim 1, wherein the nanosilicon is formed by high frequency sputtering.

7. (Previously Presented) A method for manufacturing a nanosilicon light-emitting element, comprising:

forming an amorphous  $\text{SiO}_x$  film comprising a mixture of silicon atoms and oxygen atoms on a semiconductor substrate;

heat treating said amorphous  $\text{SiO}_x$  film in an inert gas to form the silicon atoms into nanosilicon of about 3.0nm or less; and

subjecting said amorphous  $\text{SiO}_x$  film including said nanosilicon to treatment with an aqueous solution of hydrofluoric acid and thermal oxidation to allow at least one of three primary colors of light to be emitted at a low operating voltage at room temperature.

8. (Previously Presented) A method for manufacturing a nanosilicon light-emitting element, comprising:

forming an amorphous  $\text{SiO}_x$  film comprising a mixture of silicon atoms and oxygen atoms on a semiconductor substrate;

heat treating said amorphous  $\text{SiO}_x$  film in an inert gas to form the silicon atoms into

nanosilicon of about 3.0nm or less; and

subjecting said amorphous  $\text{SiO}_x$  film including said nanosilicon repeatedly to treatment with an aqueous solution of hydrofluoric acid and natural oxidation to allow at least one of three primary colors of light to be emitted at a low operating voltage at room temperature.

9. (Previously Presented) The method for manufacturing a nanosilicon light-emitting element according to claim 7, wherein a blue color of the three primary colors of light is emitted clearly and in a stable manner.
10. (Previously Presented) The method for manufacturing a nanosilicon light-emitting element according to claim 7, wherein the semiconductor substrate comprises a silicon substrate, and a temperature of the heat treatment comprises a temperature in a range of about 900°C to 1200°C.
11. (Previously Presented) The method for manufacturing a nanosilicon light-emitting element according to claim 7, wherein a temperature of the thermal oxidation treatment comprises a temperature in a range of about 400°C to 1000°C.
12. (Original) The method for manufacturing a nanosilicon light-emitting element according to claim 7, wherein the nanosilicon is formed by high frequency sputtering.
13. (Previously Presented) The nanosilicon light-emitting element according to claim 2, wherein a blue color of the three primary colors of light is emitted clearly and in a stable manner.

14. (Previously Presented) The nanosilicon light-emitting element according to claim 2, wherein the semiconductor substrate comprises a silicon substrate, and a temperature of the heat treatment comprises a temperature in a range of about 900°C to 1200°C.
15. (Previously Presented) The nanosilicon light-emitting element according to claim 2, wherein a temperature of the thermal oxidation treatment comprises a temperature in a range of about 400°C to 1000°C.
16. (Original) The nanosilicon light-emitting element according to claim 2, wherein the nanosilicon is formed by high frequency sputtering.
17. (Previously Presented) The method for manufacturing a nanosilicon light-emitting element according to claim 8, wherein a blue color of the three primary colors of light is emitted clearly and in a stable manner.
18. (Previously Presented) The method for manufacturing a nanosilicon light-emitting element according to claim 8, wherein the semiconductor substrate comprises a silicon substrate, and a temperature of the heat treatment comprises a temperature in a range of about 900°C to 1200°C.
19. (Previously Presented) The method for manufacturing a nanosilicon light-emitting element according to claim 8, wherein a temperature of the thermal oxidation treatment comprises a temperature in a range of about 400°C to 1000°C.

20. (Original) The method for manufacturing a nanosilicon light-emitting element according to claim 8, wherein the nanosilicon is formed by high frequency sputtering.

21. (Previously Presented) The nanosilicon light-emitting element according to claim 1, wherein at least a portion of said nanosilicon comprises nanosilicon formed on a surface of said amorphous SiO<sub>x</sub> film.

22-25. (Canceled)